

REDUCED SWING CHARGE RECYCLING CIRCUIT
ARRANGEMENT AND ADDER INCLUDING THE SAME

ABSTRACT OF THE DISCLOSURE

A circuit arrangement uses differential pass transistor logic, a low voltage swing and charge recycling to save power, in which the swing voltage is reduced, but the supply voltage is not reduced, thereby maintaining the transistor device current and avoiding speed degradation. SOI devices including an adder, which uses this circuit arrangement, can avoid the body effect to long pass transistor network and improve the speed at lower supply voltage.